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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,382

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Ralf Schneider

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FULBRIGHT & JAWORSKI, LLP
666 FIFTH AVE
NEW YORK, NY 10103-3198

EXAMINER

ZHENG, LOIS L

ART UNIT

PAPER NUMBER

1793

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07/07/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,382	Applicant(s) SCHNEIDER ET AL.	
	Examiner LOIS ZHENG	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-55,57,58 and 60-80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-55,57,58 and 60-80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3 February 2010 has been entered.

Status of Claims

2. Claims 35, 44-45, 52, 54-55, 57-58, 60, 62, 64 and 66 are amended in view of applicant's amendment filed 11 March 2010. New claims 72-80 are added. Claims 56 and 59 are canceled. Therefore, claims 35-55, 57-58 and 60-80 are currently under examination.

Status of Previous Rejection

3. The rejection of claims 55, 57 and 68-71 under 35 U.S.C. 103(a) as being unpatentable over Ishii et al. US 6,231,688 B1(Ishii) is withdrawn in view of applicant's persuasive argument that Ishii lacks teaching of claimed nitroguanidine on page 18 of applicant's remarks filed 11 March 2010.

Claim Objections

4. Claims 73-75 are objected to because of the following informalities:

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Claims 73-74 depend on claim 72 which is directed to an aqueous phosphating solution. However, claims 73-74 recite "The method of claim 72", where it should be "The aqueous phosphating solution of claim 72".

Claim 75 recites "0g/l of Ca ions, 0g/l of Mg ions, wherein at least 0.1 g/l of at least one of Ca or Mg ions are present". These limitations are self contradictory because if Ca and Mg are 0g/l, they cannot be present in an amount of at least 0.1g/l. In this office action, the examiner is treating 0g/l of Ca ions and 0g/l of Mg ions as typographical errors and interpreting the intended limitations to be 0-16g/l of Ca ions and 1-10g/l of Mg ions.

Appropriate correction is required.

5. Claims 72 and 74 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 52 and 65. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 35, 52, 54-55, 57, 72, 76 and 80 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 35, 52, 54-55, 57, 72, 76 and 80 recite **free** calcium and/or **free** magnesium ions, which are not literally supported by the instant specification. Therefore, these claim limitations are considered new matter.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 52, 65, 72, 74-75 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meagher et al. US 2002/0096229(Meagher).

Meagher teaches a process for treating metal surfaces with an aqueous acidic zinc phosphate coating solution (abstract, paragraph [0036]) comprising:

- 0.75-5% of phosphate (paragraph [0022])
- 0.05-2% of Zn (paragraph [0024-25])
- 0.005 – 0.5% of manganese (paragraph [0029])
- Ca and Mg are present from hard water source(paragraph [0035]), but preferably, no more than 0.5% of dissolved unchelated Ca and Mg cations (i.e. free Ca and Mg ions) each is present in the coating solution (paragraph [0045])
- Nitroguanidine (paragraph [0033])

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- 0.3-4ppt of chlorate and/or 0.005-0.15ppt of hydrogen peroxide (paragraph [0033])
- 0.25-15ppt, or preferably 0.25-4ppt of complex fluoride such as HBF_4 , H_2SiF_6 , H_2TiF_6 , H_2ZrF_6 , H_2HfF_6 (paragraph [0039-0041]).
- 0.05-5ppt of free fluoride (paragraph [0041])
- 0.05-15ppt of total fluoride (paragraph [0042])
- Free acid ranges from 0.3-10 and total acid ranges from 13-50 (paragraph [0037])

Regarding claims 52, 72, 75 and 79, the phosphate, zinc, manganese, Ca/Mg, chlorate/hydrogen peroxide, complex/simple/total fluoride concentrations in the coating solution of Meagher read on the claimed concentrations. The ratio of free acid to total acid calculated from the free acid and total acid ranges as taught by Meagher encompasses the claimed FA/TA ratio. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed FA/TA ratio range from the disclosed range of Meagher would have been obvious to one skilled in the art since Meagher teaches the same utilities in its' disclosed FA/TA ratio range.

In addition, even though Meagher does not explicitly teach the claimed amount of nitroguanidine in the coating solution, one of ordinary skill in the art would have found it obvious to have varied the concentration of nitroguanidine via routine optimization in order to achieve the desired coating formation rate since Meagher's teaching of nitroguanidine as an accelerator(paragraph [0033]) shows that nitroguanidine is a result effective variable that affects the speed of the coating formation.

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Regarding claims 65 and 74, since Meagher teaches that the cobalt content can be as low as 10ppm (paragraph [0023]), the examiner concludes that Meagher discloses a coating solution that is substantially free of cobalt based on the broadest reasonable interpretation.

10. Claims 35-51, 53-54, 61, 63, 67, 76-78 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meagher et al. US 2002/0096229(Meagher), and further in view of Ishii et al. US 6,231,688 B1(Ishii).

The teachings of Meagher are discussed in paragraph 9 above.

However, Meagher does not explicitly teach the subsequent cold working step as claimed.

Ishii teaches a zinc phosphate conversion coating solution that produces a zinc phosphate conversion coating with improved adhesion and uniformity(col. 1 lines 11-20). Ishii further teaches that zinc phosphate conversion coating can be applied to metal substrate improve lubrication during cold working(col. 1 lines 22-28).

Regarding claims 35, 54 and 76-78, one of ordinary skill in the art would have found it obvious to have applied cold working to the zinc phosphated metal of Meagher with expected success since Ishii teaches that zinc phosphate conversion coating can be applied to metal substrate improve lubrication during cold working.

Regarding claim 36, Meagher further teaches adding 0.001-1.7% of nitrate to the coating solution(paragraph [0033]), which overlaps the claimed nitrate amount. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed nitrate concentration range from the disclosed range of Meagher in

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view of Ishii would have been obvious to one skilled in the art since Meagher in view of Ishii teach the same utilities in their disclosed nitrate concentration range.

Regarding claim 37, Meagher further teaches adding 0.01-0.2ppt of nitrite to the coating solution(paragraph [0033]).

Regarding claims 38-39, the ratio of complex fluoride or fluoride ions to magnesium and the ratio of complex fluoride or fluoride ions to calcium calculated from the coating solution of Meagher encompass the claimed fluoride/Mg and fluoride/Ca ratios. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed complex fluoride or fluoride ions to Mg ratio and complex fluoride or fluoride ions to Ca ratio ranges from the disclosed ranges of Meagher in view of Ishii would have been obvious to one skilled in the art since Meagher in view of Ishii teach the same utilities in their disclosed complex fluoride or fluoride ions to Mg and complex fluoride or fluoride ions to Ca ratio ranges.

Regarding claim 40, Meagher further teaches adding 0.01-0.2% of nickel to the coating solution(paragraph [0029]).

Regarding claims 41-42, since the instant claims include zero amounts of chloride and sulfate ions, the coating solution of Meagher, although does not specifically include chloride or sulfate ions, still meets the limitations of the instant claims.

Regarding claims 43-45, Meagher teaches the claimed BF_4 in an amount that either reads on or significantly overlaps the claimed BF_4 concentration ranges. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed BF_4 concentration range from the disclosed range of Meagher in

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view of Ishii would have been obvious to one skilled in the art since Meagher in view of Ishii teach the same utilities in their disclosed BF_4 concentration range.

Regarding claim 46, Meagher teaches that its coating solution is acidic (paragraph [0036]), which encompasses the claimed pH range of 0.1-4. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed pH range from the disclosed range of Meagher in view of Ishii would have been obvious to one skilled in the art since Meagher in view of Ishii teach the same utilities in their disclosed pH range.

Regarding claims 47-49, Meagher further teaches that its coating process produces a phosphate coating having a layer weight of $1.6\text{-}10\text{g/m}^2$ (paragraph [0055]). In addition, Examples of Meagher shows that the phosphate crystals in the coating of Meagher is measured less than 20 or even less than 10 microns (Table 6). Furthermore, since coating layer thickness depends on duration of the coating treatment (i.e. the longer the coating treatment duration, the thicker the coating layer) and the level of corrosion protection desired (i.e. the thicker the coating layer, the better/longer the corrosion protection), one of ordinary skill in the art would have found it obvious to have varied the coating layer thickness by varying the coating treatment time via routine optimization in order to achieve the desired level of corrosion protection.

Regarding claim 50, Ishii further teaches applying a lubricant to the zinc phosphate conversion coated surface to improve the lubricating properties of the conversion film to support cold working (col. 9 lines 35-38). Therefore, it would have been obvious to one of ordinary skill in the art to have incorporated the application of an

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additional lubricant layer as taught by Ishii to the conversion coated surface of Meagher in view of Ishii in order to improve the lubricating properties to support cold working as taught by Ishii.

Regarding claim 51, the rejection of FA/TA ratio is set forth in the rejection of claim 1 above. In addition, Meagher further teaches that the coating solution should not contain large amount of free fluoride since large amount of free fluoride promotes etching of the substrate(paragraph [0040]), Therefore, deriving from this particular teaching from Meagher, the examiner concludes that the coating solution of Meagher does not excessively etches the substrate and the inherent ratio of the pickling erosion on the metal surface to the layer weight is less than 75% as claimed.

Regarding claim 53, the instantly claimed coated/cold worked metal object do not distinguish from the coated/cold worked metal object as taught by Meagher in view of Ishii for the same reasons as set forth in the rejection of claims 35-36 above.

Regarding claims 61, 63 and 67, since Meagher teaches that the cobalt content can be as low as 10ppm (paragraph [0023]), the examiner concludes that Meagher discloses a coating solution that is substantially free of cobalt based on the broadest reasonable interpretation.

Regarding claim 80, even though Meagher in view of Ishii do not explicitly teach that the coating process is applied to a metal-rubber composite, one of ordinary skill in the art would have found it obvious to have applied the process of Meagher in view of Ishii to any metal containing composite material, including the claimed metal-rubber composite, with expected success of forming a protective coating on the metal

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composite material since the coating process of Meagher in view of Ishii would have been suitable for any surface containing a metal material. The remaining claim limitations are rejected for the same reasons set forth in the rejection of claim 35 above.

11. Claims 35-42, 46-55, 57-58 and 60-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/36183, whose corresponding English equivalent is Bartik-Himmler et al. US 6,627,006 B1(Bartik-Himmler), and further in view of Ishii.

Bartik-Himmler teaches a process for treating metal surfaces with a phosphate coating solution comprising:

- 3-30g/l of phosphate (col. 4 lines 1-2);
- 0.3-3g/l of Zn (col. 4 lines 1-2);
- 0.1-4g/l of Mn(col. 4 line 23);
- 0.2-2.5g/l of Mg(col. 4 line 25);
- 0.2-2.5g/l of Ca(col. 4 line 26);
- 0.1-3g/l of nitroguanidine(col. 5 line 9);
- 1-70mg/l of hydrogen peroxide (col. 6 line 6);
- Free and complex fluoride in a total of up to 2.5g/l, of which up to 800 mg/l is free fluoride(col. 4 lines 41-45);
- Less than 0.5g/l of nitrate(col. 5 lines 13-18);
- 0.01-0.2g/l of nitrite(col. 5 line 6);
- Free acid between 0 and 1.5 points and total acid between about 15 and about 30 points; and
- pH of about 2.8 to about 3.8(col. 4 lines 2-4).

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However, Barik-Himmler does not explicitly teach that the complex fluoride is fluoride of Si, Ti, Hf and/or Zr as claimed. Barik-Himmler also does not teach the subsequent cold forming step as claimed.

The teachings of Ishii are discussed in paragraph 10 above.

Regarding claims 35-39, 46, 52-53, 72 and 75-79, it would have been obvious to one of ordinary skill in the art to have used complex fluorides such as H_2SiF_6 , H_2TiF_6 , H_2ZrF_6 as taught by Ishii in the coating solution of Barik-Himmler with expected success since Ishii teaches such complex fluorides suitable in a phosphate coating solution.

In addition, one of ordinary skill in the art would have found it obvious to have applied cold working to the zinc phosphated metal of Barik-Himmler with expected success since Ishii teaches that zinc phosphate conversion coating can be applied to metal substrate improve lubrication during cold working.

Furthermore, the coating process of Barik-Himmler in view of Ishii is significantly similar to the claimed coating process because the coating component concentrations, the inherent total fluoride to magnesium or calcium ratios, the coating pH and FA/TA ratio either read on, or overlap the claimed coating component concentrations.

Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed coating component concentration ranges, the claimed total fluoride to magnesium or calcium ratios, the claimed pH and the claimed FA/TA ratio from the disclosed ranges of Barik-Himmler in view of Ishii would have been obvious to one skilled in the art since Barik-Himmler in view of Ishii teach the same utilities in their disclosed ranges.

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Regarding claim 40, Barik-Himmler further teaches that nickel can be added in an amount of 0.1-2.5g/l(col. 4 line 24), which significantly overlap the claimed Ni concentration. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05.

Regarding claims 41-42, since claimed chloride and sulfate concentration can be as small as zero, the examiner maintains that the coating solution of Barik-Himmler in view of Ishii meets the limitation of the instant claims.

Regarding claims 47-49, Barik-Himmler further teaches a phosphate coating layer of a few μm (col. 3 lines 44-48). In addition, since coating weight depends on duration of the coating treatment (i.e. the longer the coating treatment duration, the heavier the coating weight) and the level of corrosion protection desired(i.e. the heavier the coating layer, the better/longer the corrosion protection), one of ordinary skill in the art would have found it obvious to have varied the coating weight by varying the coating treatment time via routine optimization in order to achieve the desired level of corrosion protection. In addition, since Barik-Himmler in view of Ishii discloses a coating process that is substantially similar to the claimed coating process, one of ordinary skill in the art would have expected that the coating process of Barik-Himmler in view of Ishii to produce a coating layer with claimed phosphate crystal size.

Regarding claim 50, Ishii further teaches applying a lubricant to the zinc phosphate conversion coated surface to improve the lubricating properties of the conversion film to support cold working(col. 9 lines 35-38). Therefore, it would have been obvious to one of ordinary skill in the art to have incorporated the application of an

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additional lubricant layer as taught by Ishii to the conversion coated surface of Barik-Himmler in view of Ishii in order to improve the lubricating properties to support cold working as taught by Ishii.

Regarding claim 51, the rejection of FA/TA ratio is set forth in the rejection of claim 35 above. In addition, since Barik-Himmler in view of Ishii discloses a coating process that is substantially similar to the claimed coating process, one of ordinary skill in the art would have expected that the coating process of Barik-Himmler in view of Ishii also would not excessively etches the substrate and the inherent ratio of the pickling erosion on the metal surface to the layer weight is less than 75% as claimed.

Regarding claims 54-55 and 57, since components such as nitrate and nitrite ions as taught by Barik-Himmler are optional components, the examiner concludes that the coating process of Barik-Himmler in view of Ishii is significantly similar to the claimed coating process as recited in claims 54-55 and the claimed coating solution as recited in claim 57 wherein the coating component concentrations significantly overlap the claimed coating component concentrations. Therefore, a prima facie case of obviousness exists for the same reasons set forth in the rejection of claims 35, 54 and 56 above. See MPEP 2144.05. The selection of claimed coating component concentration ranges from the disclosed ranges of Barik-Himmler in view of Ishii would have been obvious to one skilled in the art since Barik-Himmler in view of Ishii teach the same utilities in their disclosed coating component concentration ranges.

Regarding claims 58, 60-71 and 73-74, since cobalt is not a mandatory component in the coating solution of Barik-Himmler and Barik-Himmler's embodiment

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does not require cobalt(col. 4 lines 16-67, the examiner concludes that the coating solution of Barik-Himmler is substantially free or free of cobalt as claimed.

Regarding claim 80, even though Barik-Himmler in view of Ishii do not explicitly teach that the coating process is applied to a metal-rubber composite, one of ordinary skill in the art would have found it obvious to have applied the process of Meagher in view of Ishii to any metal containing composite material, including the claimed metal-rubber composite, with expected success of forming a protective coating on the metal composite material since the coating process of Barik-Himmler in view of Ishii would have been suitable for any surface containing a metal material. The remaining claim limitations are rejected for the same reasons set forth in the rejection of claim 35 above.

12. Claims 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartik-Himmler in view of Ishii, and further in view of Meagher.

The teachings of Bartik-Himmler in view of Ishii are discussed in paragraph 11 above. However, Bartik-Himmler in view of Ishii do not explicitly teach the claimed fluoroborate.

The teachings of Meagher are discussed in paragraph 8 above.

Therefore, one of ordinary skill in the art would have incorporated HBF_4 as taught by Meagher into the coating solution of Bartik-Himmler in view of Ishii with expected success since Meagher teaches HBF_4 , H_2SiF_6 , H_2TiF_6 , H_2ZrF_6 , H_2HfF_6 are functionally equivalent complex fluorides that are suitable for use in a phosphate coating solution.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 35-46, 50-52, 54-57, 72 and 75-79 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 27-28, 31, 34-37, 39-41 and 46-53 of copending Application No. 10/555,929.

Although the conflicting claims are not identical, they are not patentably distinct from each other because copending Application No. 10/555,929 teaches a process, a coating composition and a coated metal object that is substantially the same as claimed due to its significantly similar coating composition.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Claims 35-57, 72 and 75-79 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 41-42, 46-56, 59-60, 62-63, 67-75 of copending Application No. 10/467,850. Although the

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conflicting claims are not identical, they are not patentably distinct from each other because copending Application No. 10/467,850 teaches a process, a coating composition and a coated metal object that is substantially the same as claimed due to its significantly similar coating composition.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

16. Applicant's arguments filed 11 March 2010 are fully considered, but they are not persuasive.

In the remarks, applicant argues that Meagher does not teach the claimed amount of nitrate, which is taught as optional.

The examiner does not find applicant's argument persuasive because nitrate, although optional, is within the scope of Meagher's invention and the amount of nitrate as taught by Meagher also overlaps claimed amount of nitrate which establishes a prima facie case of obviousness. See MPEP 2144.05. In addition, the claimed 0-2g/l of nitrate also shows nitrate is an optional coating component since claimed nitrate concentration can be zero.

Applicant also argues that Meagher teaches the presence of Ca and Mg are undesirable and should be removed with the addition of a chelating agent.

The examiner does not find applicant's argument convincing because Meagher teaches that its coating solution preferably does not contain more than 0.5% of unchelated Ca or Mg(paragraph [0045]), which implies a very small amount of

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unchelated Ca or Mg(i.e. free Ca or Mg) can be tolerated in the coating solution of Meagher.

Applicant further argues that Meagher does not teach the claimed amount of nitroguanidine.

The examiner does not find applicant's argument persuasive because nitroguanidine is a known accelerator as taught by Meagher(paragraph [0033]). One of ordinary skill in the art would have found it obvious to have varied the concentration of nitroguanidine via routine optimization in order to achieve the desired coating formation rate because nitroguanidine is a result effective variable that affects the speed of coating formation.

Applicant's further arguments regarding Ishii is moot since the rejection based on Ishii has been withdrawn and Ishii is only incorporated as secondary reference for its teaching of subsequent cold working step and its teaching of types of complex fluoride.

Applicant further argues that the combination of Bartik-Himmler in view of Ishii is improper because Ishii teaches away using coating components that are included in the coating solution of Bartik-Himmler.

The examiner does not find applicant's argument convincing because Bartik-Himmler is used as a primary reference that teaches a coating solution that is significantly similar to the claimed phosphate solution. Ishii is incorporated into Bartik-Himmler to show that the subsequent cold forming step is known in the art.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mayer et al. US 6,379,474 B1 teaches a zinc phosphate coating composition that is very similar to the claimed coating composition.

Wietzoreck et al. WO 01/66826, whose English equivalent is US 7,208,053 B2, teaches a zinc phosphate coating composition that is very similar to the zinc phosphate solution as recited in claims 55 and 57, having a 50-300g/l of phosphate.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LOIS ZHENG whose telephone number is (571)272-1248. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Roy King/
Supervisory Patent Examiner, Art
Unit 1793

LLZ